

Central Maine Power Company

CMP Advanced Metering Infrastructure Project

Abstract

Central Maine Power Company's (CMP) Advanced Metering Infrastructure (AMI) project consists of territory-wide deployments of more than 600,000 smart meters to all of its residential, commercial, and industrial customers. This project is designed to create a technology platform for providing customers with electricity usage information and alternative electricity rates from third-party energy providers. Customers view their energy consumption through a Web portal and can use that information to help manage electricity bills. CMP can monitor real-time electricity demand and use that information to better manage peak loads. This project aims to reduce operations and maintenance costs and service restoration times for customers through quicker and more accurate location of faults and power outages. CMP plans to assess the load-shape and consumption impacts of providing customers with different types of information using Web portals and home area networks.

Smart Grid Features

Communications infrastructure includes a wireless mesh system that provides two-way communications between smart meters and CMP's central information processing systems. The new systems support home area networking and the future integration of smart appliances and other energy management devices. This infrastructure provides CMP with expanded capabilities for adding future programs and functionality to optimize energy delivery, system reliability, and customer participation.

Advanced metering infrastructure includes a system-wide roll out to more than 600,000 residential, commercial, and industrial customers. These advanced meters provide the capability for a variety of future customer electricity price and service options, and reduce CMP's costs of electricity delivery through lower meter reading and customer services costs. New AMI features such as outage and restoration notification help CMP identify customer service outages and respond more quickly. Remote service connection and disconnection can reduce operations costs and the time it takes CMP to reconnect existing utility service to customers. Increased monitoring capability of voltage sags and swells help CMP improve power quality for its customers.

Advanced electricity service options include home area networks and access to Web portals for all of CMP's customers. Combined, these resources enable customers to view their historical electricity use patterns. Furthermore, these

At-A-Glance

Recipient: Central Maine Power Company

State: Maine

NERC Region: Northeast Power Coordinating Council

Total Budget: \$191,716,614

Federal Share: \$95,858,307

Project Type: Advanced Metering Infrastructure and Customer Systems

Equipment

- 630,000 Smart Meters
- AMI Communication Systems
 - Meter Communications Networks
 - Backhaul Communications
- Meter Data Management System
- Customer System Communications Network
- Meter Data Analysis System
- Customer Systems for 630,000 Customers
 - Home Area Networks
 - Customer Web Portal

Key Targeted Benefits

- Reduced Meter Reading Costs
- Reduced Electricity Costs for Customers
- Improved Electric Service Reliability and Power Quality
- Reduced Costs from Distribution Line Losses and Theft
- Deferred Investment in Generation Capacity Expansion
- Reduced Greenhouse Gas and Criteria Pollutant Emissions
- Reduced Truck Fleet Fuel Usage

Central Maine Power Company *(continued)*

services support the information pilot for CMP to demonstrate how its customers respond to different forms of consumption presentation.

Timeline

Key Milestones	Target Dates
AMI deployment begins	Q3 2010
AMI deployment ends	Q2 2012

Contact Information

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